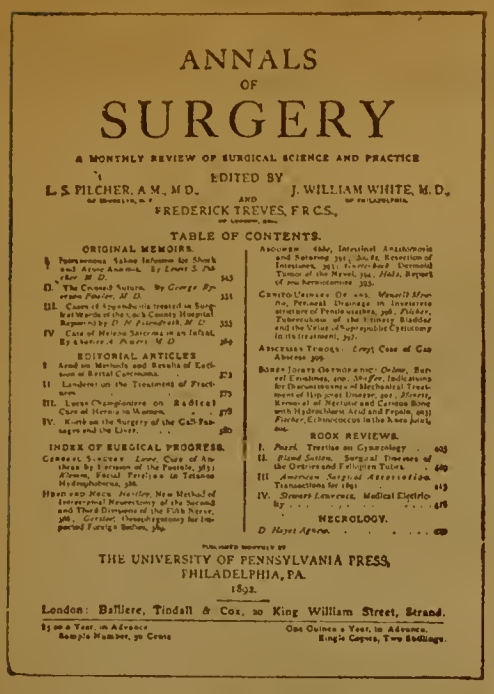
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ANNALS
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SURGERY

A MONTHLY REVIEW OF SURGICAL SCIENCE AND PRACTICE

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MARCH, 1893

18

TOTAL EXCISION OF THE LOWER JAW FOR MALIGNANT DISEASE.

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FIG. 1.—Appearance presented after total excision of jaw and removal of secondary growth.



FIG. 2.—Secondary tumor removed, as shown in Fig. 1.

COLLEGE OF SURGEONS

TOTAL EXCISION OF THE LOWER JAW FOR MALIGNANT DISEASE.[1]

By CHARLES B. NANCREDE, M.D.,

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WHEN considering the advisability of a given operation, the first question demanding an answer is, does the operation contemplate the cure or only the palliation of the disease; and secondly, in the latter event, is the knife especially dangerous to life?

If the primary disease for which we are usually called upon to remove the lower jaw were of an epitheliomatous nature, viz., truly carcinomatous, I might feel it incumbent upon me to elaborately demonstrate the local origin of carcinoma, for there are a very few who still believe this disease to be of constitutional origin, utterly ignoring all experience, pathology and analogy, when properly interpreted. Here and there a young man, desiring to attract attention, hopes to become notorious by taking the opposition side at the cost of retrograding in science, or, at best, remaining stationary in knowledge. The day has gone by when the *ipse dixit* of any man, however eminent, will of itself carry conviction, but every statement is placed in the crucible of experiment—pathological or clinical—and is compelled by the fierce heat of the experience of the majority to reveal whether dross or pure gold preponderates in its composition.

Fortunately, however, no such formidable task is demanded of me, because no epithelial elements being found in bone its only primary malignant growths must be of the connective-tissue type—in other words, sarcomata, which most assuredly are not maintained now-a-days to be of constitutional origin, yet which

[1] Read before the Northern Tri-State Medical Association, at Hudson, Mich., December 6, 1892.

are often more rapidly fatal to life than any carcinoma can be. The questions propounded can best be answered by a modification of Heyfelder's statistics for excision of the lower jaw. I am perfectly aware how fallacious statistics may prove, but so far as the death rate is concerned, and the frequency with which recurrence takes place, figures on a sufficiently large scale are thoroughly reliable.

Thus, of forty-four operations for malignant disease, twenty-three were failures so far as recurrence is concerned. Nevertheless, these patients' lives were prolonged, and a painful, disgusting condition was at least for months removed and health temporarily restored, because ulceration in the mouth entails the constant swallowing of fœtid pus, which rapidly undermines health, at the same time rendering life miserable indeed.

I am also inclined to believe that in the future the number of recoveries without recidives will be greater because of the adoption of more radical methods of treatment.

If such a percentage of recoveries without recurrence were obtainable at a great risk to life more hesitation might be felt in urging operation, but the following figures, modified from Weber, give the results obtained in operations upon the lower jaw for all causes, and probably correctly represent the mortality *per se*; moreover, many of the cases were treated during the pre-antiseptic era:

	Whole Number.	Cured.	Relapsed or Died.
Complete extirpation	22	20	2
Disarticulation, half	155	118	37
Partial excision	251	205	46

Of those classed under the heading "relapsed or died" a large proportion must have belonged to the former division, having recovered from the operation, but eventually died from the disease. This statement is certainly warranted by the results in the cases which I have added to the list, none of these having died from the operation itself.

I think that a brief history of my case, viewed in the light of the foregoing facts, will warrant certain conclusions which I shall append.

Charles L., white, married, aged thirty-three, entered the University Hospital March 24, 1891, stating that some time during the previous July he had noticed a small bony growth of the size of a small pea on that portion of the inferior border of the lower jaw corresponding to the first true molar tooth. The extraction of two teeth early in October was followed by the formation of a fungating mass springing from the alveoli of these teeth, with rapid increase in size of the jaw from the angle nearly to the symphysis. The free, offensive discharge, continually swallowed with the sloughing of portions of the growth, rapidly reduced his strength. On March 30, 1891, the right ramus, with the corresponding portion of the body of the jaw extending somewhat to the left of the symphysis, was removed. Prompt recovery occurred, the patient being discharged April 25, 1891; but shortly after his return home he noticed local recurrence, re-entering the hospital May 12. May 14, 1891, the remaining portion of the jaw was exarticulated and the floor of the mouth freely dissected away. On June 10, 1891, he again returned home, apparently free from disease, one or two silk ligatures being still attached, but the sinuses left along their tracks soon healed after their separation. No recurrence was noticed after the second operation for over two months, when a small, slowly-growing mass appeared in the right side of the scar. Some time during last February the tumor began rapidly to increase in size and upon his third admission to the hospital, April 16, 1892, Plate I well represents the size attained.

After repeated examinations it was feared that both the deep and superficial carotid arteries were involved in the growth, so that on April 22, 1892, the common carotid was exposed just above the omohyoid muscle, and a ligature was passed around that vessel, but it was not tightened. A most tedious dissection of over two hours finally enabled me to safely remove the growth, which was attached for fully two inches to the sheath of the deep vessels.

Whether or no the external carotid was divided could not be positively ascertained owing to the peculiar condition of the parts after the repeated operations, but it was believed to have been tied in the wound. No necessity arising for tightening the ligature upon the common carotid, it was withdrawn.

All the branches of the facial nerve were divided except those supplying the orbicularis palpebrarum muscle, the trunk lying bare at the bottom of the wound, with its terminal filaments hanging loose.

Prompt recovery, without a bad symptom, again took place, the

patient returning home with only a couple of minute granulating points unhealed in the whole line of the enormous incision, which reached from the zygoma above, along the border of the sterno-mastoid muscle nearly to the sternum; from the middle of this a second was carried, extending forward to the angle of the mouth.

The conclusions which I would submit for your consideration are as follows:

1. That in all primary malignant tumors of the lower jaw at least one-half of this bone, including the ramus, should be removed, with every vestige of periosteum, when possible.

2. That as experience has proved that in sarcomata of the long bones amputation in continuity rarely succeeds, the operation analogous to amputation in contiguity be adopted, viz., total excision of the lower jaw whenever the disease extends along the body much anterior to the angle.

3. That the superior ease and safety with which the operation can be completed renders it advisable always to divide the lower lip in the median line, the resulting cicatrix adding little if anything to the resultant deformity.

4. That no hesitation need be felt and no delay indulged in in removing recurring growths, because they nearly always originate from fragments of periosteum left behind, or in the attachments of the maxillary muscles, *i. e.*, in parts capable of thorough removal: the origin of these secondary growths from the parts mentioned is proved by the fact that they usually consist partly of bone.